

I/WE CLAIM:

1. Apparatus comprising:

a first supply source of sterile air;

a supply source of sterilant;

an atomizing system producing an atomized
sterilant from the mixing of the sterile air from the first
supply source of sterile air with the sterilant;

a second supply source of a hot sterile air for
providing the hot sterile air to the atomized sterilant;

a probe for applying the atomized sterilant into
an interior of a container; and

a third supply source of a hot sterile drying air
for activating and drying the sterilant in the interior of
the container.

2. The apparatus of claim 1, further including a heater
for adding additional heat to the atomized sterilant.

3. The apparatus of claim 1, wherein the container is a
bottle.

1 4 The apparatus of claim 1, wherein the sterilant is
2 hydrogen peroxide.

1 5. The apparatus of ~~claim~~ 1, wherein the supply source of
2 sterilant includes a ~~spoon~~ dipper apparatus.

1 6. The apparatus of claim 1, wherein the atomizing system
2 further includes an atomizing venturi.

1 7. The apparatus of claim 1, wherein the second supply
2 source of hot sterile air further includes a humidity
3 control system for maintaining the humidity of the hot
4 sterile air.

1 8. The apparatus of ~~claim~~ 1, wherein the probe for
2 applying the sterilant is a spray nozzle.

1 9. The apparatus of ~~claim~~ 1, wherein the probe for
2 applying the sterilant extends into the container.

1 10. The apparatus of claim 1, wherein after drying the
2 container interior surface retains a concentration of
3 hydrogen peroxide less than .5 PPM.

092447-074899

1 11. A method comprising:

2 providing a first supply of sterile air;

3 providing a supply of sterilant;

4 producing an atomized sterilant by mixing the
5 first supply of sterile air with the sterilant;

6 providing a second supply of hot sterile air to
7 the atomized sterilant;

8 providing a probe for applying the atomized
9 sterilant into an interior of a container; and

10 supplying a third supply of hot sterile drying air
11 for activating and drying the sterilant in the interior of
12 the container.

13 12. The method of claim 11, further including the step of
14 providing a heater for adding additional heat to the
15 atomized sterilant.

16 13. The method of claim 11, wherein the container is a
17 bottle.

1 14. The method of claim 11, wherein the sterilant is
2 hydrogen peroxide.

1 15. The method of claim 11, wherein the step of supplying a
2 supply of sterilant further includes the step of providing a
3 spoon dipper apparatus for measuring the quantity of the
4 sterilant.

1 16. The method of claim 11, wherein the step of producing
2 an atomized sterilant further includes providing an
3 atomizing venturi for mixing the first supply of sterile air
4 with the sterilant.

1 17. The method of claim 11, wherein the step of providing a
2 second source of hot sterile air further includes providing
3 a humidity control system for maintaining the humidity of
4 the hot sterile air.

1 18. The method of claim 11, wherein the step of supplying a
2 probe further includes providing a spray nozzle for applying
3 the sterilant.

1 19. The method of claim 11, wherein the step of supplying a
2 probe further includes extending the probe into the
3 container.

1 20. The method of claim 11, wherein the step of supplying a
2 third supply of hot sterile drying air further includes the
3 interior of the container retaining a concentration of
4 hydrogen peroxide less than .5 PPM.

1 A 3 21. Apparatus comprising:

means for supplying a first source of sterile air;

means for supplying a source of sterilant;

means for providing an atomizing system for
producing an atomized sterilant from the mixing of sterile
air from the first source of sterile air with the sterilant;

means for supplying a second source of hot sterile
air to the atomized sterilant;

means for applying the atomized sterilant to an
interior of a container; and

means for supplying a third source of hot sterile
drying air into the interior of the container for activating
and drying the sterilant.

22. The apparatus of claim 21, wherein the means for
supplying a third source of hot sterile drying air further
includes a means for providing a residual concentration of
hydrogen peroxide less than .5 PPM.